SANTA CRUZ BIOTECHNOLOGY, INC.

CDP (N-19): sc-6328

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The Power to Question

BACKGROUND

CDP (for CCAAT displacement protein) was identified as a repressor for transcription of developmentally regulated genes. It is a homeodomain protein that appears to compete with transcriptional activating proteins for binding to the promoter regions of various genes. CDP contains three cut repeats which function as DNA binding domains. It has been demonstrated that cut repeat domains have the capacity to bind to DNA in conjunction with or independently of homeodomain DNA binding. CDP has been shown to be the DNA-binding subunit of the HiNF-D complex, which contains cyclin A, Cdc2 and an Rb-related protein in addition to CDP. Histone expression is required for the transition to S phase in the cell cycle. The HiNF-D complex regulates the transcription of Histone H4, H3 and H1 genes, allowing cells to progress from G_1 to S phase.

REFERENCES

1. Stein, G.S., et al. 1984. Histone Genes. New York: Wiley.
2. Neufeld, E.J., et al. 1992. Human CCAAT displacement protein is homologous to the *Drosophila* homeoprotein cut. Nat. Genet. 1: 50-55.
3. Valarche, I., et al. 1993. The mouse homeodomain protein Phox2 regulates NCAM promoter activity in concert with Cux/CDP and is a putative determinant of neurotransmitter phenotype. Development 119: 881-896.
4. Harada, R., et al. 1994. Conserved cut repeats in the human cut homeodomain protein function as DNA binding domains. J. Biol. Chem. 269: 2062-2067.
5. Luo, W., et al. 1996. CCAAT displacement protein competes with multiple transcriptional activators for binding to four sites in the proximal gp91phox promoter. J. Biol. Chem. 271: 18203-18210.

CHROMOSOMAL LOCATION

Genetic locus: CUTL1 (human) mapping to 7q22.1; Cutl1 (mouse) mapping to 5 G2.

SOURCE

CDP (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of CDP of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-6328 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-6328 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

CDP (N-19) is recommended for detection of CDP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CDP (N-19) is also recommended for detection of CDP in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CDP siRNA (h): sc-35051, CDP siRNA (m): sc-35052, CDP shRNA Plasmid (h): sc-35051-SH, CDP shRNA Plasmid (m): sc-35052-SH, CDP shRNA (h) Lentiviral Particles: sc-35051-V and CDP shRNA (m) Lentiviral Particles: sc-35052-V.

CDP (N-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of CDP: 180 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, NIH/3T3 nuclear extract: sc-2138 or BJAB nuclear extract: sc-2145.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Marinaro, C., et al. 2011. *In vivo* fate analysis reveals the multipotent and self-renewal features of embryonic AspM expressing cells. PLoS ONE 6: e19419.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.